

Residential Indoor Wood Burning

What is it?

Residential wood burning is used in many homes throughout Indiana for primary and secondary heat. Three types of equipment are used primarily: woodstoves, furnaces, and fireplaces. All can provide heat to a home but fireplaces are often used just for the pleasure of their aesthetic qualities.

Health and Environmental Effects of Wood Burning

Burning wood produces an array of harmful chemicals which include known carcinogens. Carbon monoxide, hydrocarbons, formaldehyde and at least 100 other compounds are emitted when wood is burned. These chemicals pollute both indoor and outdoor air, which can jeopardize public health. Particulate matter or fine particles are also created when wood burns. These particles are often too small to be filtered out by the nose and these can be inhaled into the lungs. Because these particles are so small, they lodge deeply into the most delicate tissues of the lungs where they cannot be easily expelled. There are many health conditions that can be affected by breathing wood smoke. Wood smoke can worsen cardiovascular problems such as angina, irritate eyes and lungs, trigger headaches, hinder judgment, slow reflexes and worsen respiratory diseases such as asthma, emphysema, and bronchitis. Wood smoke is especially harmful to the elderly who may already suffer from heart and lung diseases. Babies, children, and expectant women are also at special risk. The U.S. EPA has determined that residential wood smoke makes up 377,000 tons of total direct particulate matter nationally with 80% of the total coming from wood stoves. Under U.S. EPA regulations, all indoor wood stoves manufactured or sold since 1992 must meet limits on the amount of pollution emitted.

Tips to Reduce Wood Burning Air Pollution

- Check to see if your wood stove is EPA-certified.
- Make sure that you have sufficient fresh outdoor air coming into the house
- Open the stove's damper when adding wood to help the wood burn properly
- Used seasoned hardwoods only instead of softwoods in stoves and fireplaces
- Inspect flues for rust and soot; repair and replace as necessary
- Check and clean chimneys, seams, and gaskets once a year

For more information on indoor wood burning visit: <http://www.epa.gov>